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EXAMINER

WANG, QUAN ZHEN

ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,173

Applicant(s)

KRISTIANSEN, RENE E.

Examiner

Quan-Zhen Wang

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification is objected to because of the following informalities:

In page 3 line 2, the specification states: "as stated in claim 1, ...". However, claim 1 is a cancelled claim;

In page 4 line 7, the specification states: "as stated in claim 2, ...". However, claim 2 is a cancelled claim;

In page 4 line 19, the specification states: "as stated in claim 3, ...". However, claim 3 is a cancelled claim;

In page 4 line 25, the specification states: "as stated in claim 4, ...". However, claim 4 is a cancelled claim;

In page 5 line 1, the specification states: "as stated in claim 5, ...". However, claim 5 is a cancelled claim;

In page 5 line 11, the specification states: "as stated in claim 6, ...". However, claim 6 is a cancelled claim;

In page 5 line 21, the specification states: "as stated in claim 7, ...". However, claim 7 is a cancelled claim;

In page 5 line 31, the specification states: "as stated in claim 8, ...". However, claim 8 is a cancelled claim;

In page 6 line 10, the specification states: "as stated in claim 9, ...". However, claim 9 is a cancelled claim.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “amplifier”; “filtering” for first and second optical signals; first and second “wavelength multiplex couplers” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 10-29 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by the Admitted Prior Art (APA) figs. 2 and 3.

Regarding claims 10 and 16, the APA fig. 2 discloses a method of amplifying optical signals, comprising: transmitting a first optical signal (fig. 2, λ_L) from one (fig. 2, port A) of first and second bidirectional ports (fig. 2, ports A and D) to a first unidirectional port (fig. 2, port B); transmitting the first optical signal (fig. 2, λ_L) from the first unidirectional port (fig. 2, port B) through an amplifier (fig. 2, amplifier 9) to a second unidirectional ports (fig. 2, port C); and transmitting the first optical signal (fig. 2, λ_L) from the second unidirectional port (fig. 2, port C) to one (fig. 2, port D) of the first and second bidirectional ports (fig. 2, ports A and D).

Regarding claims 11 and 17, the step of transmitting the first optical signal (fig. 2, λ_L) from the first bidirectional port (fig. 2, port A) to the first unidirectional port (fig. 2, port B) inherently comprises delaying the first optical signal (fig. 2, λ_L) and the step of transmitting the first optical signal (fig. 2, λ_L) from the second unidirectional port (fig. 2,

port C) to the second bidirectional port (fig. 2, port D) inherently comprises delaying the first optical signal (fig. 2, λ_L).

Regarding claims 12 and 18, the APA further discloses that the step of transmitting the first optical signal (fig. 2, λ_R) from the first bidirectional port (fig. 2, port A) to the first unidirectional port (fig. 2, port C) further comprises filtering out the first optical signal and the step of transmitting the first optical signal from the second unidirectional port (fig. 2, port C) to the second bidirectional port (fig. 2, port D) further comprises filtering out the first optical signal (the instant specification, page 9, line 30 to page 10, line 17).

Regarding claim 13 and 19, the APA further discloses transmitting a second optical signal (fig. 2, λ_R) from the first unidirectional port (fig. 2, port B) through the amplifier (fig. 2, amplifier 9) to the second unidirectional port (fig. 2, port C).

Regarding claims 14 and 20, the APA further discloses that the first optical signal is at a first wavelength (fig. 2, λ_L).

Regarding claims 15 and 21, the APA further discloses that the second optical signal is at a second wavelength (fig. 2, λ_R).

Regarding claim 22, the APA further discloses that the method further comprising: transmitting a second optical signal (fig. 2, λ_R) from one (fig. 2, port D) of first and second bidirectional ports (fig. 2, ports A and D) to the first unidirectional port (fig. 2, port B); transmitting the second optical signal (fig. 2, λ_R) from the second unidirectional port (fig. 2, port C) to one (fig. 2, port A) of the first and second bidirectional ports (fig. 2, ports A and D).

Regarding claim 23, the APA further discloses that the step of transmitting the second optical signal (fig. 2, λR) from the at least one of first and second bidirectional ports (fig. 2, ports A and D) to the first unidirectional port (fig. 2, port B) inherently comprises delaying the second optical signal (fig. 2, λR) and the step of transmitting the first optical signal (fig. 2, λR) from the second unidirectional port (fig. 2, port C) to the at least one (fig. 2, port A) of bidirectional ports (fig. 2, ports A and D) inherently comprises delaying the second optical signal (fig. 2, λR).

Regarding claim 24, the APA further discloses that the step of transmitting the second optical signal (fig. 2, λR) from the at least one of first and second bidirectional ports (fig. 2, ports A and D) to the first unidirectional port (fig. 2, port B) further comprises filtering the second optical signal (fig. 2, λR) and the step of transmitting the first optical signal (fig. 2, λR) from the second unidirectional port (fig. 2, port C) to the at least one (fig. 2, port A) of bidirectional ports (fig. 2, ports A and D) further comprises filtering the second optical signal (the instant specification, page 9, line 30 to page 10, line 17).

Regarding claim 25, the APA discloses an optical router, comprising: a first bidirectional port (fig. 2, port A) coupled to a first unidirectional port (fig. 2, port B); an amplifier (fig. 2, amplifier 9) coupled to the first unidirectional port (fig. 2, port B) and a second unidirectional port (fig. 2, port C); and a second bidirectional port (fig. 2, port D) coupled to the second unidirectional port (fig. 2, port C).

Regarding claim 26, the APA further discloses that the optical router further comprising a first delay device (fig. 3, transmission line 11) coupled to the first

bidirectional port (fig. 2, port A) and the first unidirectional port (fig. 2, port B); a second delay device (fig. 3, transmission line 113) coupled to the second bidirectional port (fig. 2, port D) and the second unidirectional port (fig. 2, port C).

Regarding claim 27, the APA further discloses that the optical router further comprising a first optical coupler (fig. 3, coupler 15) coupled to the first bidirectional port (fig. 2, port A) and the second bidirectional port (fig. 2, port B); and second optical coupler (fig. 3, coupler 17) coupled to the first unidirectional port (fig. 2, port B) and the second unidirectional port (fig. 2, port C).

Regarding claim 28, the APA further discloses that the amplifier is a unidirectional amplifier (fig. 2, amplifier 9).

Regarding claim 29, the APA further discloses that the first optical coupler is a first wavelength multiplex coupler (WDM coupler) and the second optical coupler is a second wavelength multiplex coupler (WDM coupler).

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit: 2633

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 10-29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 8-18 of U.S. Patent No. 6,724,995 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims in the continuation are broader than the ones in patent, *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982) and *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993), broad claim in continuation application are rejected as obvious double patenting over previously patented narrow claims. For example, claim 10 of the present invention is the method claim corresponding to claims 8 and 10 of the patent except that the specific couplers used for the bidirectional and unidirectional ports, respectively. Therefore, claim 1 of the instant invention is broader than claims 8 and 10 of the patent.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan-Zhen Wang whose telephone number is (571) 272-3114. The examiner can normally be reached on 9:00 AM - 5:00 PM, Monday - Friday.

Art Unit: 2633

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

qzw
3/1/06



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